

### **Participating Jurisdictions**

*County of San Diego:*

*City of Carlsbad:*

*Chula Vista*

*Coronado*

*Del Mar*

*El Cajon*

*Encinitas*

*Escondido*

*Imperial Beach*

*La Mesa*

*Lemon Grove*

*National City*

*Oceanside*

*Poway*

*San Diego*

*San Marcos*

*Santee*

*Solana Beach*

*Vista*

*San Diego Regional Airport Authority*

*San Diego Unified Port District*

*Contact the jurisdiction where your facilities are located to learn your local requirements. Call the Project Clean Water Hotline to report spills and discharges.*

**(888)-846-0800**

**Project Clean Water**

[www.projectcleanwater.org](http://www.projectcleanwater.org)



County of San Diego  
Dept. of Agriculture, Weights and Measures  
5555 Overland Ave Bldg. # 3  
San Diego CA 92123

## **Water Quality Best Management Practices at Equestrian Facilities**

County of San Diego  
Department of Agriculture,  
Weights & Measures



**Protecting Regional Water  
Resources**

**Report Illegal Discharges:  
(888) 846-0800**

## How Can Horse Facilities Impact Water Quality?

Water resources are important to everyone. Whether playing at the beach, fishing in a river, irrigating crops or quenching a thirst, we all want our water to be clean and safe. The Regional Water Quality Control Board requires the County of San Diego and each city in the county to take measures to protect the region's waters from pollution. Protecting our bays, beaches, lagoons and rivers is a responsibility we all share.

Horse wastes including manure, urine and soiled bedding have biological and chemical properties that can be harmful to plants, animals and people.



**Manure Collection Bins Allow for Proper Disposal**

Aquatic life depends upon the small amount of dissolved oxygen that naturally exists in the water. When organic matter, such as manure or bedding, enters waterways and decomposes, the increase in the bacteria population can reduce the water's oxygen content, leaving little dissolved oxygen for other aquatic life.

**Nutrients** in horse feed return to the environment in feces and urine.

If transported by stormwater or runoff to watercourses these materials can produce large amounts of algae, called blooms. These blooms consume dissolved oxygen in the water.

**Ammonia** is a by-product of urine. A very small amount of ammonia in water can kill fish.

**Salts** are contained in all animal waste. Salts do not break down and can be carried by runoff into local surface and groundwater, where it can have harmful impacts on plants and aquatic organisms. Salts can make water undrinkable and water with a lot of salt in it can harm irrigated crops.

**Bacteria and Viruses** in manure can be a health threat to humans, other horses and wildlife. Fecal coliform in manure can travel through water courses to our beaches where it can make people sick.



**Vegetative Buffers can Remove Nutrients and Sediment in Runoff**

**Soil Erosion** is accelerated by rain, wind and water runoff. When soil particles enter streams and waterways they can fill pools and smother fish. It can reduce light reaching aquatic plants and increase the water temperature. Toxins and heavy metals can bind to soil and be carried into watercourses.

## What are your responsibilities?

The County of San Diego, and each City within the County, has adopted regulations that require property owners and operators to eliminate non-stormwater discharges from their property and to minimize the discharge of contaminants in stormwater and runoff leaving their property. This brochure is designed to help you understand and comply with these regulations.

**The San Diego County Watershed Protection, Stormwater Management and Discharge Control Ordinance (WPO)** contains prohibitions on the discharge of contaminants from horse and confined animal facilities. The ordinance also requires the implementation of Best Management Practices at these facilities. Contact the city where your horse facility is located to learn the specific requirements of your jurisdiction. The following are examples of requirements generally found in stormwater and runoff regulations:

1. Manure from confined livestock, horses or other large animals which could enter receiving waters or the stormwater conveyance system (drainage ditches, gutters, creeks, etc.) must be cleaned at least twice weekly and either be composted or be stored (prior to disposal) in a manner that prevents contact with runoff.
2. Areas used for composting manure must be located, configured or managed to prevent runoff to receiving waters, or the stormwater conveyance system.
3. Pet waste can not be allowed to enter the stormwater conveyance system or receiving waters. Clean up after your animals.
4. Animal wash racks at equestrian facilities may not discharge to the stormwater conveyance system or receiving waters.



**Plumb your wash rack to a sanitary sewer or holding tank**

The regulations include penalties for operators of facilities who do not prevent manure, bedding, and other pollutants from being washed into the stormwater conveyance system. However it is anticipated that horse and livestock owners will voluntarily undertake the necessary and appropriate management practices to minimize the discharge of pollutants to local waters.

## What should you do?

Demonstrate responsible stewardship by implementing Best Management Practices (BMPs) and Conservation Practices to improve, protect and restore natural resources. Activities that protect water quality include:

**Horse Waste Management** includes cleaning up manure and soiled bedding on a regular basis, especially during wet weather. Store manure on an impervious surface, such as concrete, and under a tarp to prevent runoff and leaching of pollutants into the ground. Locate storage areas away from waterways. Compost

your horse manure, it can be less expensive than disposal costs and makes an excellent soil amendment.



**Use a Licensed Waste Disposal Service to Haul Manure and Bedding when Composting is Not an Option**

- Locate your facilities and conduct activities, away from waterways, flood-prone areas and steep hillsides. Address water quality concerns in the design of new facilities and work to upgrade existing facilities.
- Use grass ditches and berms to divert rain and stormwater run-on from contacting contaminants and carrying them offsite.
- Divert downspouts and drains to pervious areas that will absorb and filter rooftop runoff.
- Divert runoff that has contacted manure, bedding, or other pollutants to vegetated areas or retention basins that can filter nutrients and other contaminants. Separate corrals, paddocks and manure storage areas from waterways by planting and maintaining vegetation between them and waterways or conveyances. Vegetation slows water velocity, increases absorption, reduces runoff volume and helps filter out pollutants.
- Construct and maintain trails, arenas, roads and parking areas to minimize the discharge of sediment and petroleum products. Use dry cleaning methods regularly in parking areas and roads to remove dirt and other contaminants that could enter waterways.
- Learn more about water quality testing. Obtain a test kit to identify contaminants in water entering and leaving your property.
- Protect soil by planting and maintaining vegetation.
- Protect and restore streamside areas by planting grasses, trees and shrubs. These plant materials will filter sediment and horse waste while stabilizing stream banks and reducing solar heating of water.

## For more information

University of California, Cooperative Extension

(858) 694-2845

Mission Resource Conservation District

(760) 728-1332

County of San Diego

[www.sdcountry.ca.gov/dpw/watersheds](http://www.sdcountry.ca.gov/dpw/watersheds)



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